Love's Dearest Enemy---"Time"

By NELL BRINKLEY

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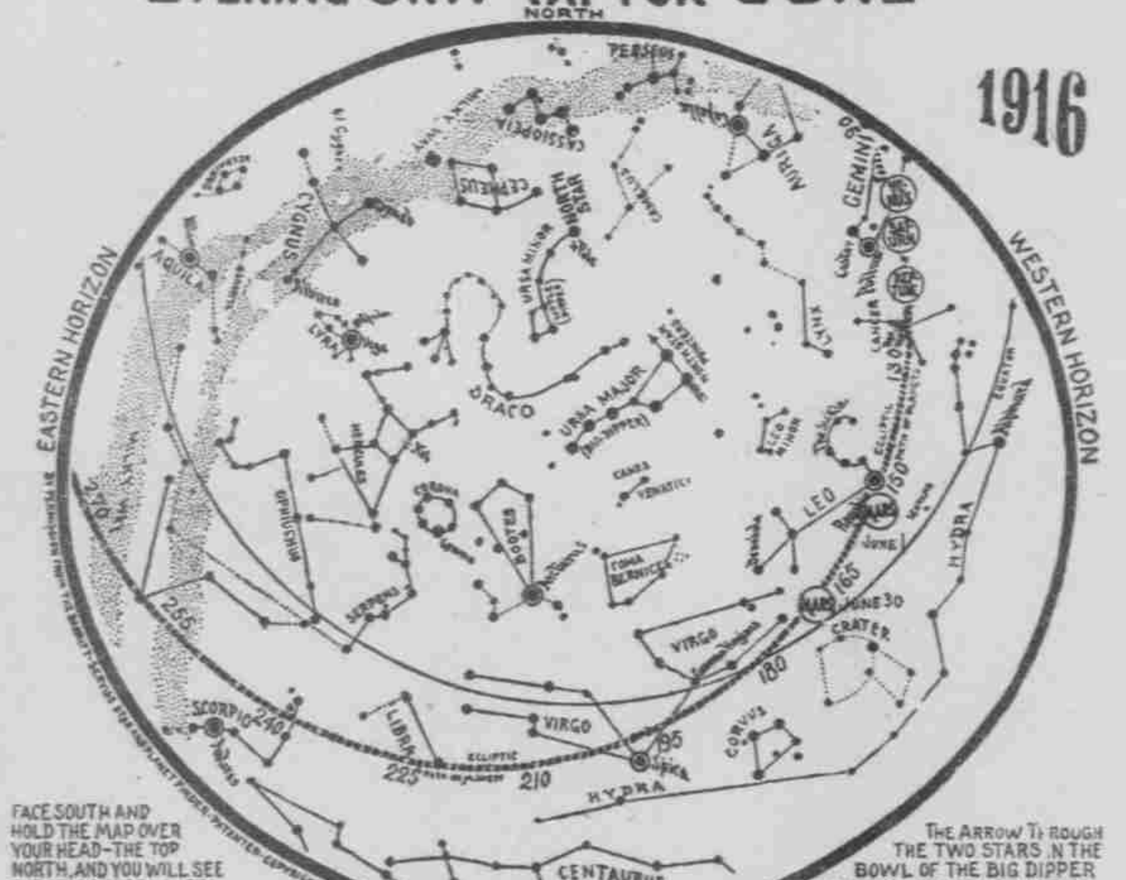
TIME is Love's one great grief. He—tender Love—is a gentle fellow, a kind, a cheery, a forgiving rogue. Even his people's offenses against himself he forgives after the first big, round tears. Jealousy is the absinthe eyes he despises and forgives. Neglect he struggles against and forgets. Coldness he takes and hides in his bosom to warm it, if he can, smiling the while. He counts the world his kingdom and all peoples his vassals. And he has but one enemy on whom he wastes good hours and a fine brain and heart on hating. That is Time! Before the hour glass with its slowly falling-away sands he crouches and glowers, the hot tears in his wrathful eyes and his two fists clinched on his small chest. He hates and stares. He sits lost in an orgie of loathing. His small person is shaken by giant passion. His dearest enemy is Time, who robs him, who sifts away the life of the golden-and-black bee and the crumpled butterfly, and leaves one of his lovers in the world alone, lonely!

EVENING SKY MAP FOR JUNE



WHILE widespread and popular interest is shown in the stars, and those observatories offering hospitality to the public are always well attended on their evenings "at home," it seems strange that comparatively few questions are asked in regard to our sun, which, after all, is but a star of the milky way, and through the varied aspects of which fresh knowledge of the universe may be read.

Scientifically viewed, no heavenly body offers greater fascination or variety of detail than the sun.

Of its many phases, perhaps none are more beautiful than the mantle of coral tinted flame, called the chromosphere, about which but little is popularly known.

Invisible to the unaided eye, excepting at times of total eclipse, the chromosphere, averaging six or seven thousand miles in depth, covers the body of the sun from pole to pole.

So brilliant is the photosphere (the surface ordinarily seen), which shines beneath, that dispersion of its intense light by means of the spectroscope is necessary, before the chromospheric fires may be observed. To the unpracticed eye these appear at first as small, irregular flames fringing the outline of the solar disc. As the vision grows accustomed, however, details multiply, until the scene is etched forth with an interest and beauty past imagining.

Out of the chromospheric bed, and mounting above its level, delicate objects arise, of complex and varied shape.

Objects Easily Seen.

At our distance of 93,000,000 of miles, these objects, known as prominences, are seen in exquisite miniature. In reality they are gigantic flames, rising and falling in brief periods, and measuring roughly from 20,000 to 250,000 miles or more in height.

Through the telescope, when the proper adjustments are completed, they may be seen in countless forms. Here, a bundle of apparently thread like flames, twisting together from the base, will coil upwards in a fiery rope, the spiral well defined, to branch at the summit like a tree. Or detached shreds of fire many thousands of miles in length, may be observed floating above the chromosphere in elfish and fantastic shapes. There an object like an aigrette will droop tendrils of an incandescent rose, or a tuft of stiff, parallel flames darting upwards, will curve at their terminals into a cluster of shining rings. And over the wide surface of the sun, the chromosphere itself, that bed of continuous though lesser fires, is swept to and fro like a feathery down, in the stress of solar storms.

Other aspects of the sun, which like the chromosphere, are but a tiny fraction of the whole, present phenomena varied and beautiful enough to justify the devotion of a lifetime to their study. These, beginning with the photosphere, are the enveloping shells or layers encasing the colossal mechanism within, and of which they are expressions.

Beneath the photosphere the mind of man has not yet penetrated. But from that dazzling surface, itself the scene of vast eruptions, the worlds like little children draw their sustenance, as they follow their great mother in her flight through space towards an unknown destiny.

The Planets for June.

Mercury on June 5 is at inferior conjunction and becomes a morning star. It reaches its greatest western elongation on June 29, but is so far south of the sun that it will not be well seen.

Venus will continue to be the most conspicuous object in the evening sky until the latter part of June. It will set about three hours after the sun the first of the month, two hours later the middle of the month, and by the end of the month will be too near the sun to be seen. Its motion will be retrograde from June 11, and by the last of the month will have moved seven degrees westward.

Mars is still placed for observation in Leo, although steadily decreasing in size. It will be found near Regulus, from which it can be distinguished by its ruddy color.

Jupiter is finely in view in Pisces in the morning sky. It rises about 1 a. m., June 1, and shortly after midnight the last of the month.

Saturn will be too near the sun to be well seen this month. It is in Gemini.

Uranus rises about midnight on June 1, and about 10 p. m. on the 30th. There are no conspicuous stars near it.

Neptune is in the western evening sky in Cancer.

Planetary Configuration for June.

June 1, 4:22 a. m. Mercury and moon in conjunction. Mercury south 4 degrees 38 minutes.

June 3, 11:18 a. m. Saturn and moon in conjunction. Saturn south 1 degree 29 minutes.

June 3, 6:28 p. m. Venus and moon in conjunction. Venus north 1 degree 18 minutes.

June 4, 7:05 p. m. Neptune and moon in conjunction. Neptune south 16 min.

June 5, 6 p. m. Mercury in inferior conjunction with sun. (Sun, planet and earth in line).

June 6, 3 a. m. Mercury in Aphelion. (Most remote point from the sun).

June 7, 7:22 p. m. Mars and moon in conjunction. Mars north 4 degrees 28 minutes.

June 11, 9 p. m. Venus stationary.

June 17, 9 p. m. Venus in descending node.

June 17, 6 p. m. Mercury stationary.

June 19, 8:25 a. m. Uranus and moon in conjunction. Uranus south 2 degrees 44 minutes.

June 21, 11:24 a. m. Sun enters Cancer—Summer commences.

June 22, 9 a. m. Venus and Saturn in conjunction. Venus south 57 min.

June 24, 4:12 p. m. Jupiter and moon in conjunction. Jupiter south 6 degrees 52 minutes.

June 26, 12 m. Mercury greatest heliocentric lat. south.

June 28, 6:11 a. m. Mercury and moon in conjunction. Mercury south 7 degrees 7 minutes.

June 29, 11 a. m. Mercury greatest elongation west 21 degrees 52 min.

June 30, 10 p. m. Venus and moon in conjunction. Venus south 4 degrees 20 minutes.

June Moon Phases.

June 5, 4:59 p. m. First quarter.
June 15, 2:41 p. m. Full moon.
June 22, 8:16 p. m. Last quarter.
June 30, 3:43 a. m. New moon.

Question and Answer Department.

G. S. writes: "It is stated in the text books of astronomy that at the equinoxes there is equal day and night all over the world, a small circle near each pole excepted; but why is it that the almanac time of sunrise and sunset appears to show that day and night are not quite equal in length at the equinoxes? The time of sunrise and sunset as given in almanacs is for the upper limb of the sun; if it was for the sun's center the discrepancy would be a little less. A Washington astronomer endeavored to enlighten me on this subject by means of trigonometry, which is a branch of mathematics that I, unfortunately, know nothing about. He stated that if there were no refraction and equation of time the sun's center would rise and set at 6 o'clock at the equinoxes; but are not the computations in almanacs corrected for parallax and refraction? And if the sun is 8 minutes fast or slow at rising or setting at the time of equal day and night, how can this make any difference in the length of time from sunrise to sunset?"

ANS.—The times of sunrise and sunset as given in most almanacs are in mean time, which is not the time given by the actual visible sun, but is taken from a "mean" sun which represents the average of the irregular performances of the sun throughout the year. The difference between the two is the equation of time. For this reason the almanacs would not give the sunrise at 6 a. m., even if all other factors were neglected. However, there are two factors you have mentioned which make the length of the daylight period longer than 12 hours at the time of the equinoxes: The fact that sunrise and sunset are calculated for the upper limb of the sun and not for the center, and secondly, the apparent lifting up of the sun by refraction. Both these effects tend to prolong daylight both at rising and setting, and neither is neutralized as you suggest. The almanac lines are naturally not corrected for refraction and parallax because you want to know the exact time the sun's upper limb pushes its way across the horizon, for with the upper limb daylight can most properly be said to begin and end.

C. N. L. writes: (1) "Please give us a definition of the word solstice?" (2) "What possible connection can the 12 signs of the Zodiac have with the human anatomy as represented by the picture of the gentleman undergoing a major operation in the almanac?" (3) "Is it 'dark of the moon' during new moon and first quarter and 'light of the moon' during full moon and last quarter, and if so, why?" (4) "Can the moon have any effect on the growth of plants or seeds?"

(1) The sun in its apparent yearly movement through the heavens passes along a great circle called the ecliptic, half of which lies to the north of the equator and half to the south. It crosses the equator at two points called the equinoxes. The two points on the ecliptic furthest from the equator are called the solstices. The sun is at the northern or summer solstice on June 21. (2) This, of course, is purely imaginary. (3) These terms are not scientific; we think you are right. (4) While it is philosophically impossible for us to say that any event may not have some ultra-minute effect upon any other occurrence or upon some person or thing, no matter how apparently remote, we know of no direct connection between the two phenomena you mention. The idea, though very widespread, smacks of astrology and superstition. Perhaps the foolish notion of the moon having direct and large effect upon the rainfall may have something to do with it.

Women Who Drink

Alcohol Has a More Disastrous Effect Upon Woman's Will Power Than Upon Man's; Few Women Drinkers Reform.

BY MADISON C. PETERS.

MAN'S ideal of what woman ought to be is based upon his belief of what she normally is, better than himself. Man's own selfish desire is the chief factor in dragging her down from the pedestal upon which he himself has placed her and yet with that strange inconsistency which characterizes him, he will idolize her if she resists.

If sin is blacker in woman than in man, it is because she is by nature purer and has further to fall. If man seems to condemn sin in the woman more than in the man, he is paying to her for that very reason his highest compliment.

Intoxicants are dangerous enough to men, to women they are especially so. The virtue of woman with the drink habit is always in danger. The effect of alcohol upon woman's will power and sense of moral responsibility is well known and utilized by the man of the world. The lack of moral balance and defective will produced in the woman by drink are more marked than in the man. Woman's emotional organization is more susceptible than that of man, hence the special danger of drink to women.

Disastrous Results Shown.

The disastrous results of tippling among women are already too well known to physicians, and experience shows that while men who drink often reform, women who become victims to drink seldom do. Women drink more than men when once they begin. They are more reckless and go to pieces sooner.

That women drink as freely and as frequently as men is the sad sight to be seen in the fashionable cafes and dining rooms of our great cities, where wealth abounds and beauty smiles and the gayety of their merriment is plainly something more than the natural flow of their own spirits.

Fashion is only another term for public sentiment. Business competition bars drinking men. Drinking among women can only be stopped by becoming unfashionable. There are persons who would rather be out of the world than be out of the fashion, but improbable as may be a woman's success in changing the general customs by her protest, the improbability of her success is no reason for being silent. Attempt nothing and nothing will be accomplished.

Social usages can be more easily changed than we at first suppose. If only a small number in every social circle, of those who are raised by their wealth and hospitality, above the accusation of meanness, and by their standing, above the suspicion, so dreadful to endure, of being unfashionable, if a few such people were to begin the change there would be many to follow and a few years would show general improvement.

Man's Fate in Woman's Hands.

Women control the affections of men and thereby mould their characters. Women are the law givers, men are the subjects, they are influenced by the teaching they receive from the example that is set them by the women.

If women mix the drink, men will not refuse to take it. If women give men the impression that they are better company when their tongues are loosened by drink and treat intemperance as a joke, men will regard dissipation as a pardonable fault.

If woman is horrified because some poor fellow, whose first step in folly was taken under her direction, but who is now by drunkenness made unfit for her society, her inconsistency will plainly appear and men will see that it is not so much the drinking habit that is condemned, as its vulgarity and grossness.

Trench Warfare An American Idea; Had Its Inception During Civil War

First Field Fortifications Known in Warfare Were Thrown Up by Union Army at Chicamauga; No Barbed Wire in the '60s but Plain Wire Was Used Effectively.

By BRIG. GEN. JOHN L. CLEM, the "Drummer Boy of Chickamauga."

WASHINGTON, D. C., May 27.—Trench warfare saw the first beginning of its development, so far as field defences are concerned, in our own civil war.

It was, of course, conducted on principles far more simple than nowadays. There were no covered trenches, and there was no question of rendering them habitable in a domiciliary way, for troops did not live in them. But there were certain rather striking likenesses of method in the style of fighting. Even the wire entanglement, for trapping and holding back an advancing enemy, was known and used.

At the outset of the civil war nothing was known of the trench as a means of defense in the field. Indeed, during the first two years of that memorable conflict no defensive field work of any kind were employed. Battles were fought in the open.

First Field Fortification.

The first field fortifications, if such they may be termed, were utilized by the Union army at Chickamauga, during the fighting of Sept. 19 and 20, 1863. The Federal forces, driven back, were thrown on the defensive, and part of them, the situation being fairly desperate, piled up logs, rails stones, and earth, seeking protection from the enemy's fire behind the barrier thus constructed, and successfully withstanding the attack until the orders came to retire.

After that, and especially during the campaigns of 1864, the Union troops could scarce halt for as much as an hour's time without throwing up defenses. They scarred the whole Confederacy with rifle-pits. Advancing as far as possible, they would "dig themselves in," each man for himself, piling up earth in front of the hole. If opportunity offered, the rifle-pits were developed into trenches, and every means that ingenuity could suggest was employed to render the latter defensively safe.

Thus, for example, great numbers of trees were cut down and laid in heaps with their branches toward the enemy. This, by the way, is a device commonly used in the European conflict of today, the branches being divested of their foliage and sharpened to points, most discouraging to attackers. In the civil war it was customary to fasten the trees together with wire, forming entanglements—the object in view being, as in present day warfare, to hold the foe as long as possible under the fire of the defenders.

No Barbed Wire Then.

Of course, in the days of the civil war there was no barbed wire. The only wire available for such purposes was telegraph wire. Perhaps the first use of the entanglement, pure and simple, was made by the Union troops besieging Fort Sanders, at Knoxville. Outside the fort was a smooth slope, which the Confederates had covered with a defensive chevaux-de-frise of pine-tree. But the cutting of the trees, in the near neighbourhood of the works, had left a corresponding number of stumps a foot and a half high. A clever soldier boy suggested the idea of stretching wire between the stumps, which was done, the result being that Longstreet's men, attempting a sortie, were caught by the wire and thrown into confusion.

It was either on this occasion or elsewhere under similar circumstances that a Yankee artilleryman, firing his gun just at the moment when an attacking force fell prostrate over an unexpected wire entanglement, cried out in horror, "My God, I've killed a whole regiment!"

Methods Are Improved.

As time went on, the combatants on both sides steadily improved the methods of trench warfare, which, in the civil war, may be said to have reached their highest development during the Atlanta campaign. The Confederates would occupy a strong position and fortify it in extempore fashion by digging and in supplementary ways; the Federals would approach within musket-shot, and both sides would thereupon construct trenches as strong and well protected as possible, devoting themselves to the task of watching each other. Such a military situation bore an obvious likeness to that observable along the fighting lines in Europe today.

The civil war was fought by young men, and largely by boys. A marked characteristic of youth is initiative, which, when applied to military affairs, means the originating of new ideas. Whatever the popular impression to the contrary, the fact is that it is the rising generation (always relied upon to do the real fighting) that creates the fresh expedients which develop and improve the art of war.

In all likelihood it was a boy soldier who, in our civil war, first hit upon the idea of laying a log the edge of a trench, beneath which, through a peephole, a man could sight a rifle without exposing himself to the enemy. It was a happy thought that undoubtedly saved the lives of thousands of soldiers. But, unfortunately, it happened now and then that a six-pounder shot, well aimed, struck the log and nearly, if not quite, knocked the heads off the brave fellows behind it. To prevent such luckless accidents, the expedient was adopted, later on, of driving stakes deep into the ground, to keep the log in place.

Speaking of entanglements, there was an occasion, in the Cumberland Gap, when the Union picket line, stretched clear across the Gap, extended for a distance of 12 miles. Wires were run athwart a road along which Confederate cavalry forces were expected to advance. Sure enough, there was an alarm soon afterwards; some of the Federal pickets were driven in, and the enemy's cavalry galloped full upon the unseen obstacle, being thereupon thrown into confusion and shot down by Union troops who were waiting for this very thing to happen. The cavalry then fell back to a small hill at a considerable distance, and shouted insulting remarks.

Record Long Distance.

Upon which (as the story is told) a Federal infantryman raised his rifle to his shoulders and shot one of the cavalrymen through the body killing him. It was the record long distance hit of the civil war (so it is said), the distance being 1100 yards.

One reads of the killing of men in the present war with rifle bullets at distances of a mile or two miles. Such things probably happen, through accident. But aimed shots with the modern weapon are no more likely to find their mark than in the civil war, the reason being that 600 yards is the limit of human sight for accurate shooting. The danger zone will always be the space that separates the marksman from an imaginary line that far away. In a battle, it is at 600 yards that the business of killing begins.

Siege Trenches Ancient Affairs.

It goes without saying that siege operations are governed by principles wholly different from those concerned in field fighting. There, the trench is a very ancient military institution. At Vicksburg and Petersburg the Union armies employed methods that were familiar to the Romans 2000 years and more ago, and to the Greeks long before their day. Just as the Romans advanced to within arrow shot of a place besieged, thereupon digging trenches to protect themselves against the fire of the defenders, and working forward by zig-zag ditches, so did the Federal troops advance to within shot, "dig themselves in," and proceed subsequently in the same manner.

Such siege trenches are called "parallels," the zigzags are "saps." When the first trench of the kind has been dug, the movement further forward was accomplished by digging zigzag ditches, throwing up the dirt toward the enemy. When this movement had been carried for a suitable distance, a second trench (parallel to the enemy's outworks) was excavated. From the second trench the advance was further continued by zigzags, as before, and the operation was repeated until the besiegers arrived close up to the defenders.

This process was employed at Vicksburg, until at length the Union forces were within twenty feet of the defenders. To give additional protection to the diggers, they used what were called "flying gabions"—bundles of hay wrapped with wires to make them compact; or sometimes cotton-bales, rolled in front of the advancing ditches.

They got so close that the defenders would light the fuses of bombshells and throw them into the excavations made by the attackers. Often the latter would pick them up with their shovels and throw them back—much in the same way as the fighting men in the war of today throw back at the enemy the grenades and bombs that land unexploded in their trenches.

It was a youngster in the Union army who invented a primitive, yet effective, contrivance for throwing bombshells under such circumstances. It was a block of wood with a saucer-shaped hole in the top. A small quantity of gunpowder, readily obtained from a few cartridges, sufficed, when a bomb was set in the hole, to throw it into the enemy's midst. The idea was so obviously good that presently the army engineers took it up, and began making mortars of hooped logs set on end, from which large bombshells were fired.

Americans Originate Bomb Proof.

The "bombproof," which has attained high and ingenious development in the present war, affording overhead and other shelter to the soldiers not engaged for the time begin in actual fighting, had its origin during our civil war. It was ordinarily a pen of logs covered over and around its sides with earth. One might say that its most complete development, in the conflict, was achieved at Fort Fisher, which suffered so frightful a bombardment by the Federal fleet. A whole system of bombproofs was built there, with guns mounted between each two; and, when the gunfire from the ships became too hot, the garrison sought refuge in them.

When, by digging operations—"parallels" and "saps"—the besiegers, in the civil war, arrived close up to the defenders' works resort was had to mining. This meant burrowing underground, and the planting of explosives, to blow up the adversary. There was also countermining by the besieged, with a similar object in view, the method adopted, though less highly developed, being the same as those used in the present conflict.

The trench warfare of today has been so far developed, with its barb-wire entanglements, moats, pits with stakes to impale horses, and other supplementary murder traps, that defences of the kind are practically impregnable. They can be captured only after they have been torn to pieces by artillery fire. It was very different, of course, in the civil war, with high explosive shells were unknown and field guns were weapons relatively feeble.

Up to 1861 the effective range of cannon did not exceed 600 yards. Today the Germans have guns that can land a projectile with fair accuracy, it is said, at a distance of 25 miles. Which goes to show that war, like other arts, progresses rapidly with the advance of civilization.

Goats to Relieve Milk Shortage in Germany if Plans Are Carried Out

Berlin, Germany, May 27.—In anticipation of a probable shortage of milk next winter, the minister of agriculture already is taking steps looking to the raising during the coming summer of as many goats as possible. The agriculture chambers and organizations all over Prussia are being urged to get into touch with goat breeding associations everywhere with the object of influencing individuals in the right direction.

Premiums for raising goats will be offered, goat markets in the cities at which goats are sold to butchers will not be held as usual, and arrangements will be made whereby special pastures will be available for the animals.

A DAMAGED FLOCK.

Bobbie had never seen a live sheep, but one of his most treasured toys was a little wooly lamb on wheels, which he drew all about the house and yard. Last summer he spent several weeks on his uncle's sheep ranch in the west. When he first spied the flock, he exclaimed:

"You must have got them cheap, uncle, 'cause they've all lost their wheels."—New York Times.